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Remarks

Review and reconsideration of this application are respectfully requested.

Claims 2 and 9-12 have been canceled and new claims 27-31 have been added.

Claim Rejection - 35 U.S.C. § 112

Claims 3-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The examiner states that it is not clear as to how the polymeric material can be polyamide, phenolic resin, epoxy resin, polyester, polyurethane, high density polyolefin, or a blend thereof all at the same instance. It appears that the material consists of one of these materials.

Response to the Claim Rejection - 35 U.S.C. § 112

In response to the above rejection under 35 U.S.C. 112, applicant has amended claims 3, 4, 6 and 7 to better define the polymeric material.

Claim Rejections - 35 U.S.C. § 102

1. Claims 1 and 19 are rejected under 35 U.S.C. 102 (b) as being anticipated by McCutchan, Jr. (4,468,210). The examiner alleges that McCutchan, Jr. discloses a pulley having a body (80), and a bearing insert carrier insert (86) forming a central hub which has inner and outer circumferential surfaces, and housing a bearing member (85) and the outer race of the bearing is circumferentially adjacent the inner circumferential surface of the bearing.

2. Claims 1-5, 8-9, 11, 13-14, 15-17 and 22 are rejected under 35 U.S.C. 102b) as being anticipated by Speer (4,366,609). The examiner alleges that Speer discloses an idler pulley comprising a body (24), with a pulley receiving peripheral shape (20), a tubular insert (12), the insert forming a central hub along the perpendicular axis of the pulley body, the hub having an inner circumferential surface and an outer circumferential surface.

In claims 2-3, Speer discloses the pulley body is manufactured from a moldable polymeric material, which is phenolic resin.

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In claims 4-5, Speer discloses the polymeric can be a polyamide (col. 2, lines 34-55) and in claim 5, Speer discloses the insert is manufactured from aluminum.

In claim 8, Speer discloses the moldable material includes a reinforcing agent which is fibrous glass (col. 2, lines 54-55).

In claim 9, Speer discloses the use of high density polyethylene.

In claim 11, Speer discloses the use of fibrous glass, which is glass fiber.

In claims 13-14, Speer discloses the metal coating (18). The metal is coated before being formed in an aluminum sleeve (46).

In claims 15-17, Speer discloses the claimed invention (col. 2, lines 56-67).

In claim 22, Speer discloses the locking portion (26).

Response to the Claim Rejections - 35 U.S.C. § 102

With respect to the rejection of claims 1 and 19 under 35 U.S.C. 102(b) over McCutchan, Jr., applicant has amended claim 1 to include the limitations of claims 12 and 18 as well as claims 8 and 2, claims 2, 12 and 18 having been canceled by this amendments. Accordingly, since claim 12 was not rejected, it is believed that claims 1 and 10 are no longer anticipated by McCutchan, Jr. Accordingly, it is respectfully requested that this rejection be withdrawn.

With respect to the rejection of claims 1-5, 8-9, 11, 13-14, 15-17 and 22 under 35 U.S.C. 102(b) over Speer, applicant has amended claim 1 to include the limitations of claim 12 and 18 as well as claims 8 and 2, claims 2, 12 and 18 having been canceled by this amendments. Accordingly, since claim 12 and 18 were not rejected, it is believed that claims 1-5, 8-9, 11, 13-14, 15-17 and 22 are no longer anticipated by Speer.

Regarding claims 2-3, 4-5, 8, 9, 11, 13-14, 15-17 and 22, applicant submits that such claims are dependent claims which simply further limit the base claim. Accordingly, it is respectfully requested that the rejection of claims 1-5, 8-9, 11, 13-14, 15-17 and 22 under 35 U.S.C. 102(b) over Speer be withdrawn.

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Claim Rejections - 35 U.S.C. § 103

1. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Speer in view of JP (02-202928). Speer fails to disclose the type of polyamide is nylon. It is well known in the art that nylon is an organic base in polyamide that produces high resistance to temperature and good resistant to abrasion. JP (02-202928) discloses that polyamides such as nylon 6, and nylon 12 are suitable because of their high melting point and highly crystalline structure. Therefore, it would have been obvious to one of ordinary skill in the art to use a polyamide consisting of the group including nylon 6 or nylon 12 in view of JP (02-202928) in order to produce high temperature resistance and good resistant to abrasion.
2. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Speer in view of FR (1,595,346). Speer fails to disclose that one of the modifier, filler, and reinforcing agent and adhesion promoter is of a group consisting of talc or mica. FR (1,595,346) discloses that it is known in the art to use talc or mica as reinforcing filler in moldable plastics so as to increase strength and produce good abrasion. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use talc or mica as a reinforcing agent in the moldable plastic of Speer as disclosed by FR (1,595,346 so as to increase strength and produce good abrasion.
3. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Speer in view of EP (0 856,675). Speer fails to disclose the insert is coated with brass, it is well known to coat steel with brass in order to reduce corrosion and reduce the adverse effects of atmospheric contamination. EP (0 856,675) discloses a hub (17) is coated with brass. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to coat the insert of Speer with brass as disclosed by EP (0 856,675) in order to reduce corrosion and reduce the adverse effects of atmospheric contamination.
4. Claims 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCutchans, Jr. in view of Hoffman et al (4,046,432). McCutchan, Jr. discloses the claimed invention except for the hub including means for location the bearing member during assembly. Hoffman et al disclose a bearing member (23) fitted within a central hub, wherein the hub includes a location means (37/47/57), which is a dentent that is allowed to lock the rotational movement of the bearing, retaining relative axial movement and to facilitate proper alignment

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between the bearing in the hub. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the pulley of Speer so as to include a location means in view of Hoffman et al in order to lock the rotational movement of the bearing, retaining axial movement and to facilitate proper alignment of the bearing in the hub.

5. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Speer in view of Hoffman and McCutchan, Jr. Speer discloses the claimed invention above but does not disclose a one or more bearing members locating means and a bearing member fitted in the hub. Hoffman discloses the bearing member locating means as indicated in the above paragraph relating to the rejection of claims 20-21. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the pulley of Speer so as to include a location means in view of Hoffman et al in order to lock the rotational movement of a bearing in the hub. In addition, McCutchan, Jr. discloses the bearing member fitting in the hub as in the above p [paragraph relating to the rejection of claims 20-21. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to fit a bearing member in the hub of Speer as disclosed in order to reduce friction.

Response to the Claim Rejections - 35 U.S.C. § 103

1. With respect to the rejection of claims 6-7 under 35 U.S.C. 103(a) as being unpatentable over Speer in view of JP (02-202928). In view of the above amendments, it is believed that independent claims 1 and 23 are neither anticipated nor rendered obvious over the cited references to McCutchan, Jr. or Speer. Therefore, dependent claims 6-7, which merely define further limitations of an otherwise nonobvious independent claim, is also considered nonobvious. Accordingly, it is respectfully requested that this rejection be withdrawn.

2. With respect to the rejection of claim 10 under 35 U.S.C. 103(a) as being unpatentable over Speer in view of FR (1,595,346). In view of the above amendments, it is believed that independent claims 1 and 23 are neither anticipated nor rendered obvious over the cited references to McCutchan, Jr. or Speer. Therefore, dependent claim 10, which merely defines a further limitation of an otherwise nonobvious independent claim, is also considered nonobvious.

Accordingly, it is respectfully requested that this rejection be withdrawn.

3. With respect to the rejection of claims 18 under 35 U.S.C. 103(a) as being unpatentable

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over Speer in view of EP (0 856,675). In view of the above amendments, it is believed that independent claims 1 and 23 are neither anticipated nor rendered obvious over the cited references to McCutchans, Jr. or Speer. Therefore, dependent claim 18, which merely defines a further limitations of an otherwise nonobvious independent claim, is also considered nonobvious. Accordingly, it is respectfully requested that this rejection be withdrawn.

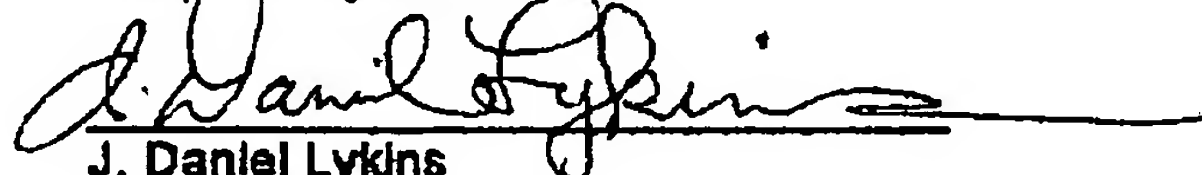
4. With respect to the rejection of claims 20-21 under 35 U.S.C. 103(a) as being unpatentable over McCutchan, Jr. in view of Hoffman (4,046,432). This rejection is confusing because the examiner rejects claims 20-21 over McCutchans, Jr. in view of Hoffman, but then suggests that it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the pulley of Speer so as to include a location means in view of Hoffman. It is unclear whether claims 20-21 are rejected over McCutchans, Jr. or Speer. In any event, it is believed that independent claims 1 and 23 are neither anticipated nor rendered obvious over the cited references to McCutchans, Jr. or Speer. Therefore, dependent claims 20-21 which merely define further limitations of an otherwise nonobvious independent claim, are also considered nonobvious. Accordingly, it is respectfully requested that this rejection be withdrawn. Accordingly, it is respectfully requested that this rejection be withdrawn.

5. With respect to the rejection of claim 23 under 35 U.S.C. 103(a) as being unpatentable over Speer in view of Hoffman and McCutchan, Jr., applicant submits that independent claim 23 has now been amended to further limit Independent claim 23 by (1) defining the moldable material forming the idler pulley body as containing an adhesion promoter selected from the group consisting of sulfur, silica, acrylates, vinyl acetates and low molecular weight polyamide, and (2) defining the outer circumferential surface of the insert as being coated with brass or zinc to fixedly adhere the tubular metal bearing insert to the pulley body. Accordingly, it is respectfully requested that this rejection be withdrawn.

In view of the foregoing amendments and remarks, it is believed that this application is now in condition for allowance and an early indication thereof is earnestly solicited.

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Respectfully submitted,


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